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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,789	12/08/2005	Ramesh Mantha	213222.00104	1171

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PATENT ADMINISTRATOR
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EXAMINER

HUANG, WEN WU

ART UNIT	PAPER NUMBER
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2618

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/559,789

Applicant(s)

MANTHA ET AL.

Examiner

Wen W. Huang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-3, 5-10, 12-22, 24 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Hall (US. 5,991,618).

Regarding **claim 1**, Hall teaches a method of determining at a base station an estimate of the maximum available uplink transmit power of a subscriber station (see Hall, col. 7, lines 3-5) having a radio including foldback circuitry and maintaining that estimate at said base station (see Hall, abstract), said method comprising:

transmitting a message (see Hall, col. 3, lines 46-50) from said subscriber station (see Hall, fig. 2, component 104) to said base station (see Hall, fig. 2, component 110) whenever an incident of foldback occurs at said subscriber station (see Hall, col. 3, lines 38-41);

decreasing the maintained estimate of said maximum uplink transmit power of said subscriber station at said base station when said base station receives said message from said subscriber station (see Hall, col. 4, line 65 – col. 5, line 6); and

increasing said maintained estimate at said base station when a predefined period of time has lapsed after said base station received said message (see Hall, col. 4, lines 10-19).

Regarding **claim 2**, Hall also teaches the method of claim 1, wherein said base station increases said maintained estimate in increments of 1 dBm (see Hall, col. 2, line 24-25 and col. 5, lines 39-42).

Regarding **claim 3**, Hall also teaches the method of claim 1, wherein said base station decreases said maintained estimate in increments of 1 dBm (see Hall, col. 2, line 24-25 and col. 5, lines 39-42).

Regarding **claim 5**, Hall also teaches the method of claim 1, wherein said incident of foldback includes said radio experiencing a preselected number of consecutive frames (see Hall, col. 2, lines 21-24).

Regarding **claim 6**, Hall also teaches the method of claim 1, wherein said incident of foldback includes said subscriber having a foldback duty cycle of more than 10% over a predetermined period of time (see Hall, col. 2, lines 19-21).

Regarding **claim 7**, Hall also teaches the method of claim 1 wherein said message includes an indication of the degree of foldback imposed at said subscriber station and said base station decreases said maintained estimate proportionally to the degree of foldback (see Hall, col. 4, line 61 – col. 5, line 6).

Regarding **claim 8**, Hall teaches a system for transmitting data comprising:
a plurality of subscriber stations (see Hall, fig. 2, component 104) each operable to transmit a message (see Hall, col. 3, lines 46-50) indicating an incident of foldback in said subscriber station (see Hall, col. 3, lines 38-41); and
a base station (see Hall, fig. 2, component 110) operable to maintain an estimate of the maximum available uplink transmit power for each said subscriber station (see Hall, col. 2, lines 44-48) and to receive any said messages from said plurality of subscriber stations (see Hall, col. 3, lines 46-50) and to reduce said maintained estimate for each said subscriber station which has sent any said message (see Hall, col. 4, lines 60-64, col. 5, lines 55-59 and col. 7, lines 1-5).

Regarding **claim 9**, Hall also teaches the system of claim 8, wherein said base station adjusts the maximum uplink transmit power in increments of 1 dBm (see Hall, col. 2, line 24-25 and col. 5, lines 39-42).

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Regarding **claim 10**, Hall also teaches the system of claim 8, wherein said base station increases the maximum uplink transmit power of after a predetermined period of time has lapsed since receiving said message indicating any incidents of foldback in said radio (see Hall, col. 5, lines 39-42 and col. 7, lines 1-5).

Regarding **claim 12**, Hall also teaches the system of claim 8, wherein said incident of foldback includes said radio experiencing foldback over a preselected number of consecutive frames (see Hall, col. 2, lines 21-24).

Regarding **claim 13**, Hall also teaches the system of claim 8, wherein said incident of foldback includes said subscriber having a foldback duty cycle of more than a predetermined amount (see Hall, col. 2, lines 19-21).

Regarding **claim 14**, Hall also teaches the system of claim 8, wherein said base station adjusts said maximum uplink transmit power of said each subscriber station in accordance with the method described in claim 1 (see Hall, col. 7, lines 3-5).

Regarding **claim 15**, Hall teaches a system for transmitting data comprising:
at least one subscriber station (see Hall, fig. 2, component 104) operable to transmit data at a plurality of different data rates (see Hall, col. 2, lines 56-63), said at least one subscriber station further operable to transmit a message (see Hall, col. 3,

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lines 46-50) indicating an incident of foldback in said at least one subscriber station (see Hall, col. 3, lines 38-41); and

a base station operable (see Hall, fig. 2, component 110), upon receiving said message (see Hall, col. 3, lines 46-50), to reduce the data rate for said at least one subscriber station (see Hall, col. 4, line 65 – col. 5, line 6).

Regarding **claim 16**, Hall teaches a subscriber station (see Hall, fig. 2, component 104) having a radio including foldback circuitry (see Hall, fig. 2, component 120) and operable to transmit a message (see Hall, col. 3, lines 46-50) indicating any incidents of foldback in said radio to a base station (see Hall, col. 3, lines 38-41).

Regarding **claim 17**, Hall also teaches the subscriber station of claim 16, wherein an incident of foldback includes said radio experiencing foldback over a predefined number of consecutive frames (see Hall, col. 2, lines 21-24).

Regarding **claim 18**, Hall also teaches the subscriber station of claim 16, wherein said incident of foldback includes said subscriber having a foldback duty cycle of more than a predetermined amount (see Hall, col. 2, lines 19-21).

Regarding **claim 19**, Hall teaches a subscriber station (see Hall, fig. 2, component 104) having a radio with foldback circuitry (see Hall, fig. 2, component 120), said subscriber station operable to transmit data at a plurality of different data rates (see

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Hall, col. 2, lines 56-63), and said subscriber station further operable transmit data at a lower data rate from said plurality of different data rates after experiencing foldback in said foldback circuitry (see Hall, col. 4, line 65 – col. 5, line 6).

Regarding **claim 20**, Hall teaches a base station (see Hall, fig. 2, component 110) operable to receive messages from a remote subscriber station (see Hall, col. 3, lines 46-50) and further operable to adjust an estimate of the maximum available uplink transmit power maintained for said subscriber station (see Hall, col. 7, lines 3-5) upon receiving a message (see Hall, col. 3, lines 46-50) indicating an incident of foldback in the radio of said subscriber station (see Hall, col. 3, lines 38-41).

Regarding **claim 21**, Hall also teaches the base station of claim 20, wherein said base station adjusts the estimate of maximum available uplink transmit power in increments of 1 dB (see Hall, col. 2, line 24-25 and col. 5, lines 39-42).

Regarding **claim 22**, Hall also teaches the base station of claim 21, wherein said base station increases the estimate of maximum available uplink transmit power of said subscriber station after a predetermined period of time has lapsed since receiving a message indicating any incidents of foldback in said subscriber station (see Hall, col. 4, lines 10-19).

Regarding **claim 24**, Hall also teaches the base station of claim 20, wherein said base station adjusts said maximum available uplink transmit power of said subscriber station in accordance with the method described in claim 1 (see Hall, abstract and col. 7, lines 3-5).

Regarding **claim 25**, Hall also teaches a base station (see Hall, fig. 2, component 110) operable to reduce the data rate of a subscriber station (see Hall, col. 4, line 65 – col. 5, line 6), upon receiving a message (see Hall, col. 3, lines 46-50) from said subscriber station indicating an incident of foldback in the radio of said subscriber station (see Hall, col. 3, lines 38-41).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 11 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall as applied to claims 1, 10 and 22 above, and further in view of Knuutila et al. (WO 00/01094; hereinafter "Knuutila")

Regarding **claims 4, 11 and 23**, Hall teaches the method and apparatus of claims 1, 10 and 22.

Hall is silent to teaching that wherein said predetermined length of time is 30 minutes. However, the claimed limitation is well known in the art as evidenced by Knuutila.

In the same field of endeavor, Knuutila teaches the method and apparatus wherein said predetermined length of time is 30 minutes when the time that allows the overheated power amplifier to cool down is 30 minutes (see Knuutila, abstract and page 6, lines 7-12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Hall and the teaching of Knuutila in order to prevent any damage of the power amplifier from overheating (see Knuutila, abstract).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kawano et al. (US. 5,774,797) teach a power amplifier of a mobile station free of overheating damages.

Knuutila et al. (US 6,819,937 B2) teach a method for updating transmission power.

Aho et al. (US. 6,484,041 B1) teach a method for adjusting power consumption.

Kosaka (US. 6,574,209 B1) teaches a mobile station having a variable communication speed.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen W. Huang whose telephone number is (571) 272-7852. The examiner can normally be reached on 10am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay A. Maung can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

wwh


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QUOCHIEN B. VUONG
PRIMARY EXAMINER